

**METHOD, APPARATUS AND COMPUTER PROGRAM PRODUCT FOR  
IMPLEMENTING ENHANCED HIGH FREQUENCY RETURN CURRENT  
PATHS UTILIZING DECOUPLING CAPACITORS IN A PACKAGE DESIGN**

Abstract of the Disclosure

- 5           A method, apparatus and computer program product are provided for  
implementing high frequency return current paths utilizing decoupling  
capacitors within electronic packages. Electronic package physical design  
data are received for identifying a board layout. For each of a plurality of  
cells in a grid of a set cell size within the identified board layout, a respective  
10       number of signal vias are identified. A ratio of signal vias to return current  
paths is calculated for each of the plurality of cells. Each cell having a  
calculated ratio greater than a target ratio is identified. One or more  
decoupling capacitors are selectively added within each of the identified cells  
to provide high frequency return current paths.